

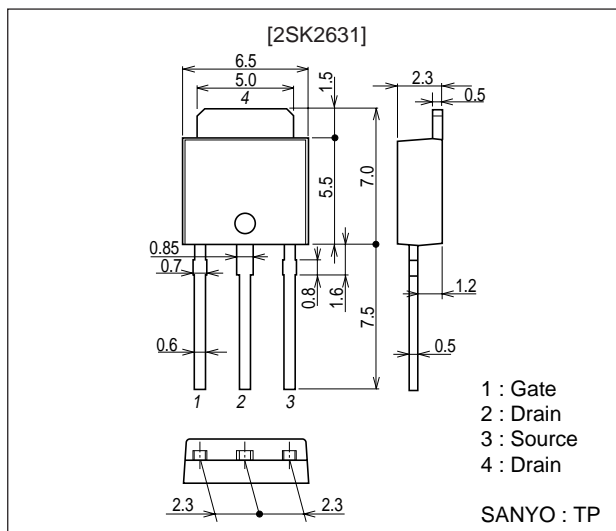
**SANYO****Ultrahigh-Speed Switching Applications****Features**

- Low ON resistance.
- Smaller amount of total gate charge.

**Package Dimensions**

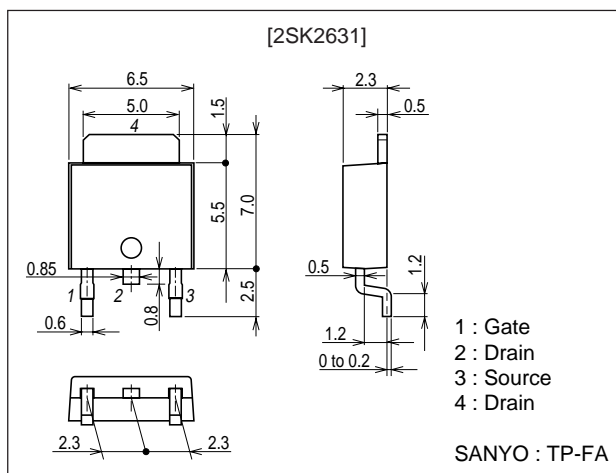
unit : mm

2083B



unit : mm

2092B



- Any and all SANYO products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical and/or material damage. Consult with your SANYO representative nearest you before using any SANYO products described or contained herein in such applications.
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Specifications

Absolute Maximum Ratings at Ta=25°C

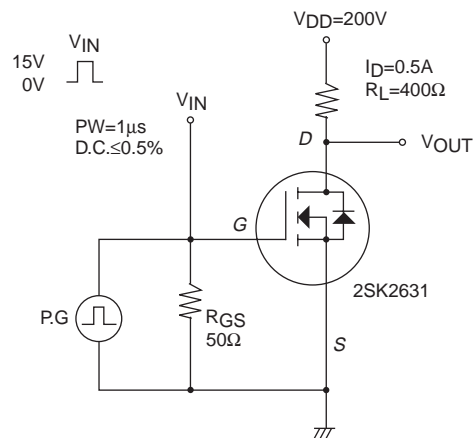
Parameter	Symbol	Conditions	Ratings	Unit
Drain-to-Source Voltage	$V_{DSS}$		800	V
Gate-to-Source Voltage	$V_{GSS}$		$\pm 30$	V
Drain Current (DC)	$I_D$		1	A
Drain Current (Pulse)	$I_{DP}$	$PW \leq 10\mu s$ , duty cycle $\leq 1\%$	3	A
Allowable Power Dissipation	$P_D$	$T_c = 25^\circ C$	30	W
			1.0	W
Channel Temperature	$T_{ch}$		150	$^\circ C$
Storage Temperature	$T_{stg}$		-55 to +150	$^\circ C$

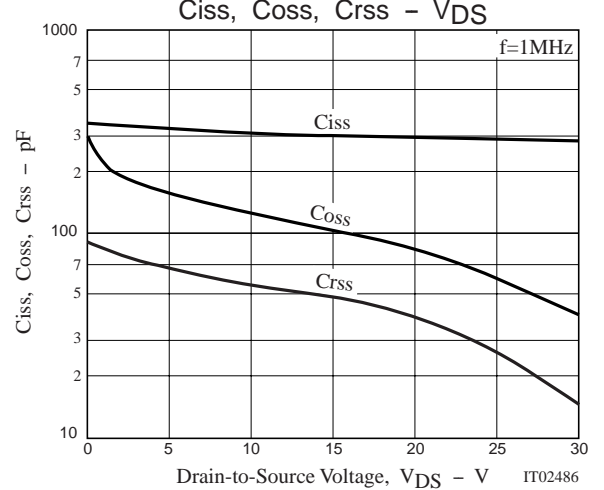
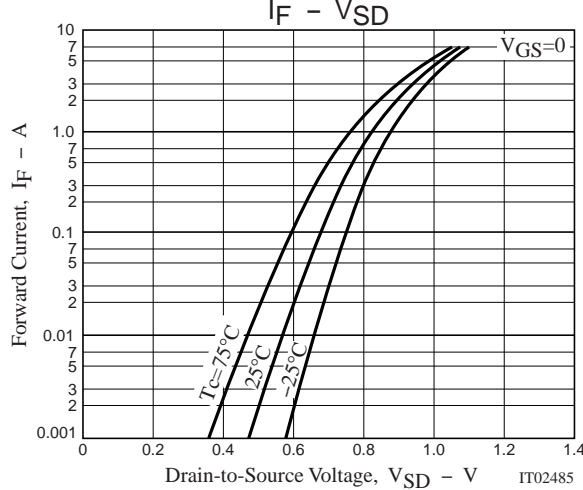
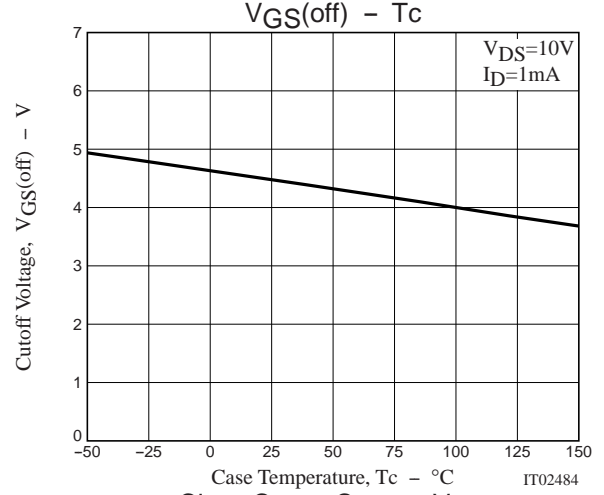
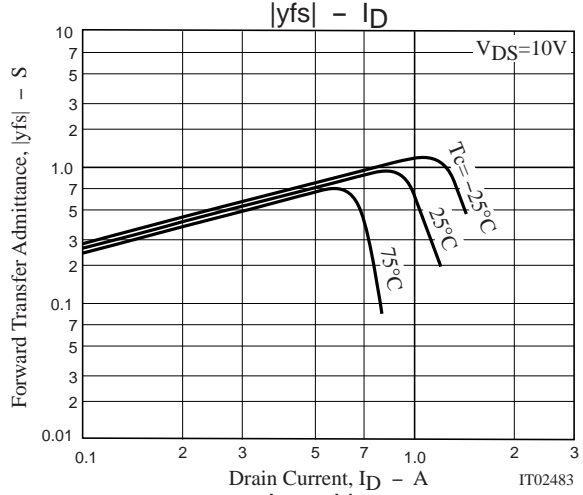
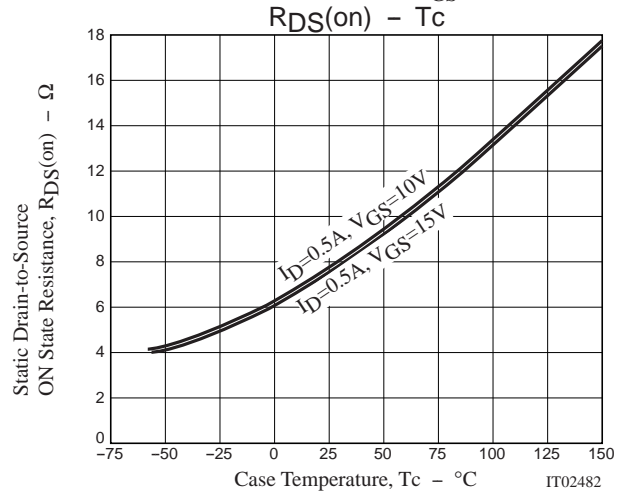
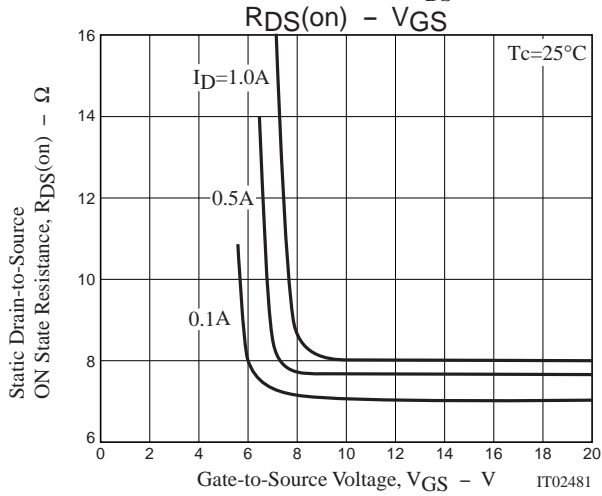
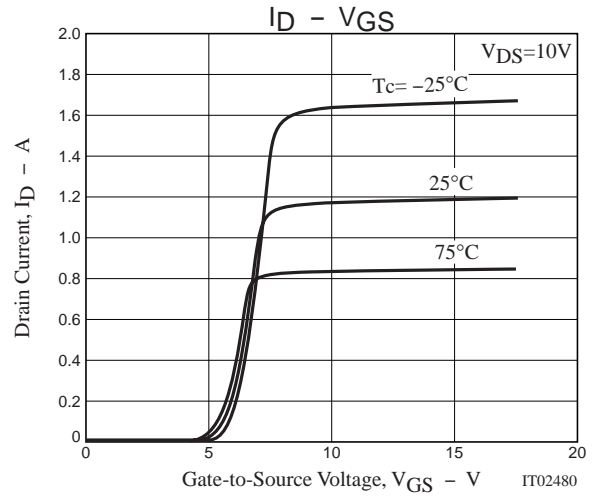
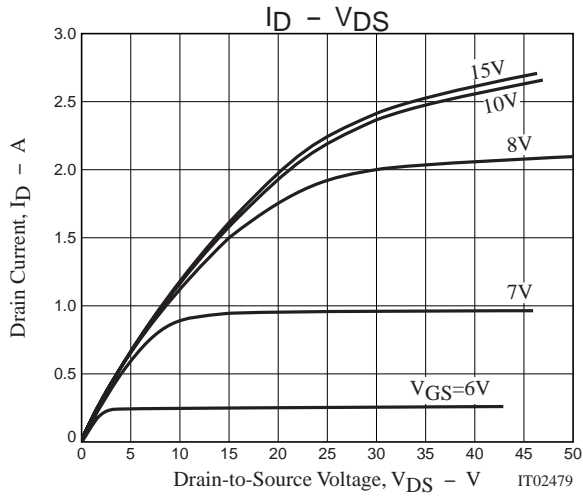
Electrical Characteristics at Ta=25°C

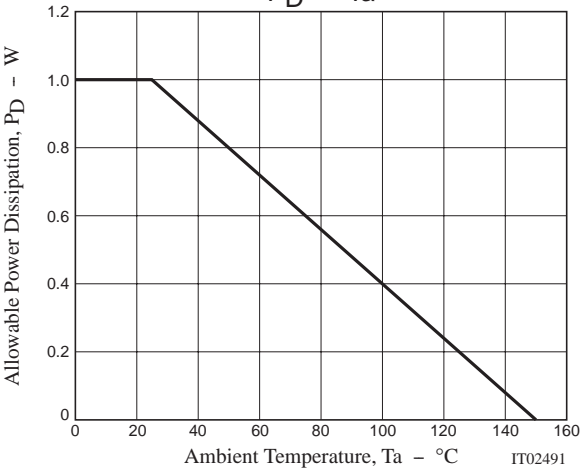
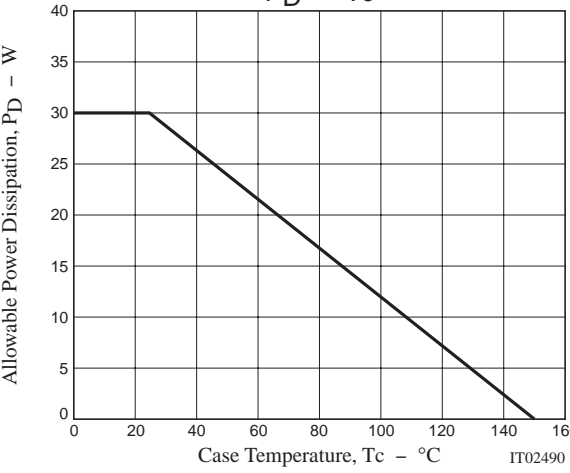
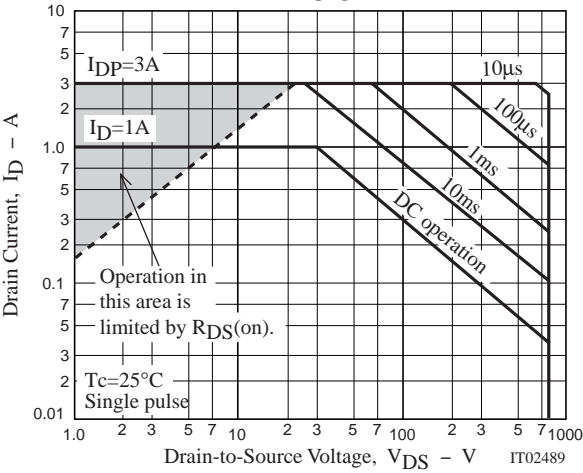
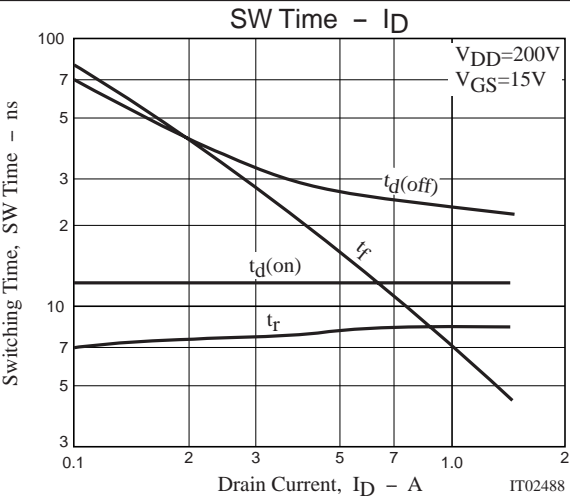
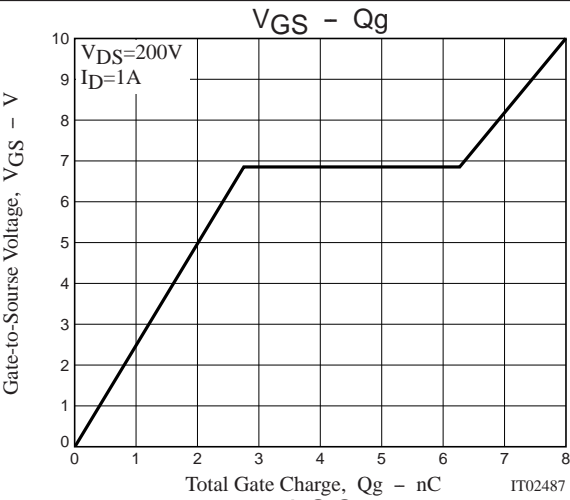
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$I_D = 1mA$ , $V_{GS} = 0$	800			V
Zero-Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 800V$ , $V_{GS} = 0$				mA
Gate-to-Source Leakage Current	$I_{GSS}$	$V_{GS} = \pm 30V$ , $V_{DS} = 0$			$\pm 100$	nA
Cutoff Voltage	$V_{GS(off)}$	$V_{DS} = 10V$ , $I_D = 1mA$	3.5		5.5	V
Forward Transfer Admittance	$ y_{fs} $	$V_{DS} = 10V$ , $I_D = 0.5A$	370	740		ms
Static Drain-to-Source On-State Resistance	$R_{DS(on)}$	$I_D = 0.5A$ , $V_{GS} = 15V$		7.5	10	$\Omega$
Input Capacitance	$C_{iss}$	$V_{DS} = 20V$ , $f = 1MHz$		300		pF
Output Capacitance	$C_{oss}$	$V_{DS} = 20V$ , $f = 1MHz$		85		pF
Reverse Transfer Capacitance	$C_{rss}$	$V_{DS} = 20V$ , $f = 1MHz$		40		pF
Total Gate Charge	$Q_g$	$V_{DS} = 200V$ , $I_D = 1A$ , $V_{GS} = 10V$		8		nC
Turn-ON Delay Time	$t_d(on)$	See specified Test Circuit		12		ns
Rise Time	$t_r$	See specified Test Circuit		8		ns
Turn-OFF Delay Time	$t_d(off)$	See specified Test Circuit		27		ns
Fall Time	$t_f$	See specified Test Circuit		16		ns
Diode Forward Voltage	$V_{SD}$	$I_S = 1A$ , $V_{GS} = 0$		0.82	1.2	V

Marking : K2631

Switching Time Test Circuit







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